

U.S. Pullorum-Typhoid & Salmonella Enteritidis

Name	Classifications	Available to	Etiology	Routes of Transmission	Species Affected	Clinical Signs	Zoonotic Potential	
U.S. Pullorum-Typhoid	Clean	All breeding poultry Required for NPIP	<i>Salmonella enterica</i> serotype Pullorum	Transovarial, aerosol, fomites, oral	Chicken	Primarily young chicks/poults moribund/dead; Adults less severe but carriers	Through ingestion; rare	
	Clean State				Turkeys	Thirst, anorexia, green/yellow diarrhea, sudden death		
	Wild, domestic fowl				Not described			
				<i>Salmonella enterica</i> serotype Gallinarum	Transovarial, aerosol, fomites, oral	Chicken	Young chicks/poults moribund/dead after hatching; Adults more frequently affected	Rarely isolated; little significance
						Turkeys	Thirst, anorexia, green/yellow diarrhea, sudden death	
						Wild, domestic fowl	Not described	
Salmonella Enteritidis	Clean	Primary Egg and Meat-type Chicken Breeding Flocks, Products; Multiplier Egg-type Chicken Flocks	<i>Salmonella enteritidis</i> serotype Enteritidis	Chickens: Direct contact, oral, fomites, transovarial	Chickens	Young: Uncommon; sudden death possible Adults: Uncommon	Major public health concern; foodborne	
	Sanitation Monitored	Multiplier Egg and Meat-type Chickens		Humans: Oral	Humans	Fever, diarrhea, abd cramps, vomiting, +/- bloody stools		
	Salmonella Monitored	Primary Meat-type Chickens						

Mycoplasma

Name	Classifications	Available to	Etiology	Routes of Transmission	Species Affected	Clinical Signs	Zoonotic Potential
Mycoplasma Gallisepticum	Clean	All poultry except Ostrich, Emu, Rhea, Cassowary, Part 146 Subpart B Commercial Egg Laying Flocks	<i>Mycoplasma gallisepticum</i>	Aerosol, direct contact, transovarial	Chickens	Chronic respiratory disease, lowered egg production	None
	Clean State	Turkey Breeding, Multiplier Meat-type chickens					
	Clean Started Poultry	Multiplier Egg and Meat-type Chickens			Turkeys	More severely affected, infectious sinusitis, respiratory distress; condemned carcasses due to air sacculitis	
	Monitored	Multiplier Meat-type Chickens					
Mycoplasma Synoviae	Clean	All poultry except Ostrich, Emu, Rhea, Cassowary, Part 146 Subpart B Commercial Egg Laying Flocks	<i>Mycoplasma synoviae</i>	Aerosols, direct contact primary; Transovarial less common; Birds infected for life, carriers	Chickens & Turkeys	Subclinical respiratory infections; lameness most prominent in turkeys	None
	Clean Started Poultry	Multiplier Egg and Meat-type Chickens			Other fowl	Not described	
	Monitored	Multiplier Meat-type					
Mycoplasma Meleagridis	Clean	Turkeys only	<i>Mycoplasma meleagridis</i>	Transovarial primary; sexual contact; aerosols, fomites	Turkeys	Poults: Air sacculitis without resp signs	None
	Clean State					Adults: Inapparent; occasional leg deformities	

Avian Influenza

Name	Classifications	Available to	Etiology	Routes of Transmission	Species Affected	Clinical Signs	Zoonotic Potential
Avian Influenza	Clean	Primary and Multiplier Egg and Meat-type Chickens, Ostrich, Emu, Rhea, Cassowary Breeding Flocks/Products	<i>Influenzavirus A virus</i>	Birds: Oral, aerosol, fomites, flies; vertical but not significant	Waterfowl, shore birds	Asymptomatic carriers	High pathogenicity has caused human illness, death
					Chickens, turkeys, ducks, geese, others	Low path: Mild respiratory disease, decreased egg production High path: High morbidity & mortality Turkeys: Hemorrhagic lesions	
	H5/H7 Clean	Turkeys, Waterfowl, Exhibition Poultry, Game Birds, Meat-type Waterfowl		Humans: Direct contact, oral	Humans	Varies by virus but conjunctivitis, respiratory disease, death	
	Monitored	Commercial Egg Laying Flocks, Meat-type Chicken and Turkey Slaughter Plants			Cats; isolated virus from horses, mink, dogs, ferrets, stone martens, palm civets, marine mammals, others	Varies by species	

Approved Tests

Approved Tests	Pullorum-Typhoid Clean	Salmonella Enteritidis (SE)*	Mycoplasma Gallisepticum	Mycoplasma Synoviae	Mycoplasma Meleagridis	Avian Influenza**
ELISA	X	X	X	X	X	X (Ab)
Hemagglutination inhibition (HI)			X	X	X	
MicroHI			X	X	X	
Microagglutination	X				X	
Polymerase chain reaction (PCR)			X	X	X	X (RRT)
Rapid serum	X					
Serum plate agglutination			X	X		
Serum plate dilution					X	
Stained antigen, rapid, whole blood	X					
Standard tube agglutination	X					
Tube agglutination			X	X		

ELISA – Enzyme-Linked Immunosorbent Assay

RRT – Real-time Reverse Transcriptase

*Salmonella Enteritidis official blood test with either pullorum antigen or federally licensed SE ELISA; feed tests and environmental sampling

**Avian Influenza antibody (Ab) detection agar gel immunodiffusion; USDA-licensed type A Influenza antigen capture immunoassay